Hazard Analysis Selection Matrix

For new, modified or relocated processes, equipment or experiments, or scale-up of previous work, characterize your process according to the criteria below. Then use the Process Hazard Analysis method called for by the highest single criterion.

Laboratory: Building _____ Room _____ Responsible Org. Code:_____

Laboratory Description: _____

	No Review Required	Low Hazard Review	Moderate Hazard Review	High Hazard Review
1. Material Hazard – Acute Toxicity				
HMIS Health Rating: circle the Hazardous Material Identification System rating, found in the Material Safety Data Sheet (MSDS)	0	1-2	3	4
Cylinder DOT Label: if a cylinder, circle Yes if the DOT label on the cylinder indicates Poison Gas, Corrosive Gas, or Flammable Gas			Yes	
2. Material Hazard – Chronic Toxicity. Circle Yes if the MSDS indicates the material exhibits Chronic Toxicity.			Yes	
3. Material Hazard – Flammability. Choose applicable line and circle the MHIS rating from the MSDS				
<1 Liter & MHIS Flammability Rating	0-1	2-4		
>1 Liter & MHIS Flammability Rating	0	1-2	3-4	
> Liter and under Pressure or above Flash Point & MHIS Flammability Rating	0		1	2-4
4. Material Hazard – Reactivity. Circle one.				
HMIS Reactivity Rating from MSDS	0-1	2	3-4	
5. Processing Hazard – Radiation. Circle all that apply.				
Laser		Class I-IIIA	Class IIIB– IV	
X-Ray Source		<20kv	>20kv	
Radioisotopes in use	None		Yes	
UV, Infra-red, Microwave, Radio wave		<TLV	>TLV	
6. Processing Hazard – Pressure. Circle any one that applies.				
Non-glass	= 0 psig	<0 psig or >0 psig & <90 psig	>90 psig	
Glassware			<0 or >0 psig	
7. Processing Hazard – Chemical Reaction Energy				
Will adiabatic reaction lead to temperature change? Circle the one that applies. (Check MSDS).	<60° F		>60° F	
Will this cause solvent to boil? Circle yes, if applicable.			Yes	
8. Processing Hazard – New Technology				
New chemistry or technology. Circle correct answer, if applicable.	None		Outside of Experience	Unknown Reactions
9. Equipment Hazard – Electrical. Circle one if applicable.	Protected <120V	Exposed or >120V		
10. Equipment Hazard – Mechanical. Circle yes or no.				
Exposed pinch points, belts, chains, rotating parts, knives, suspended loads, stored energy, etc.	No	Yes		
11. Equipment Hazard – Thermal. Circle one if applicable.				
Unprotected heated or chilled surfaces	> -20° F & < 140° F	< -20° F & >140° F		
12. Environmental Hazards.				
Noise. Circle one. Call x6-6669 if you need assistance.	<80 dBA	>80 dBA		
Hood/Ventilation Testing. Circle one if applicable.		Exemption	Permit	

Contact the Safety and Environmental Branch for assistance in completing this matrix.

***ACRONYMS**

DBA decibels, A-scale
DOT Department of Transportation
HMIS Hazardous Material Identification System
OT Odor Threshold
TLV Threshold Limit Value

APPROVALS:

_____ _____

Branch Head/Code Date Laboratory Manager/Code Date